

BOEING REALTY CORPORATION FORMER C-6 FACILITY LOS ANGELES, CALIFORNIA

INTERNAL TECHNICAL MEMORANDUM SEMI-ANNUAL ADJACENT SITES UPDATE REPORT

To:

Mr. Joe Weidmann

c/o Boeing Realty Corporation

4900 E. Conant Street

Building 1

Long Beach, CA 90808

From:

Brad Rogers, P. E.

Rubicon Engineering Corporation

Date:

July 11, 2006

Subject:

Adjacent Sites Update Report No. 5

September through June 2006 Boeing Realty Corporation

Former C-6 Facility Los Angeles, California

PURPOSE

The purpose of this memorandum is to update Boeing Realty Corporation (BRC) regarding the current environmental investigation and remediation activities and regulatory status of sites located adjacent to or in the vicinity of the Former C-6 Facility. These sites are shown in Figure 1 and are listed below.

- Del Amo Site
- Risto Los Angeles
- Ecology Control Industries
- American Polystyrene Corporation
- PACCAR Inc.
- Mighty USA
- Redman Equipment and Manufacturing Company
- Montrose Chemical Corporation (Montrose)
- · Jones Chemical
- International Light Metals (ILM)

For each of these sites, regulatory oversight is provided by the United States Environmental Protection Agency, (EPA), Department of Toxic Substances Control (DTSC), or California

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Regional Water Quality Control Board, Los Angeles Region (LARWQCB). The contact information for each site is included in Attachment 1.

This update focuses on activities conducted at adjacent sites from September 2005 through June 2006. Activities conducted at adjacent sites prior to September 2005 may be discussed in this document if new information was only recently made available in the public files.

APPROACH

Documents provided by BRC and the LARWQCB were collected, reviewed, and evaluated. The documents are being compiled in an administrative index and the principal findings are summarized in this update according to the following format:

- Background
- Regulatory Oversight
- Recent Activities
- Schedule

DEL AMO SITE

Background

A 270-acre synthetic rubber facility, known as the Del Amo Site, was operated by several companies including Shell Oil Company and Dow Chemical Company from 1942 to 1972. Environmental investigations at this facility have shown that the principal chemicals of concern are benzene and chlorinated solvents. In September 1999, USEPA issued a joint Record of Decision (ROD) for the Del Amo and Montrose sites. The ROD calls for containing the NAPLs rather than cleaning up the aquifers to drinking water standards. The ROD also requires implementation of a pump-and-treat system to contain the dissolved plumes. The respondents for this site are primarily Shell Oil Company and the General Services Administration.

On May 8, 2003, EPA issued an Administrative Order to the respondents for conducting initial remedial design work. In addition to Montrose and Shell Oil, EPA will conduct groundwater modeling as outlined in the Administrative Order.

Regulatory Oversight

The Del Amo site is a Superfund site and EPA is the oversight agency. EPA considers the Del Amo and Montrose sites to be a joint site regarding groundwater investigation and remedial actions. Recently, EPA has put pressure on the LARWQCB and the owners/operators of facilities adjacent to the Del Amo and Montrose sites to further characterize the water quality of the water-bearing zones beneath these sites with emphasis on the Gage aquifer and the C-Sand.

Recent Activities

There were no reports available for review.

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Schedule

According to BRC, URS Corporation is installing five wells (3 Gage and 2 C-Sand) along the western property boundary. These wells are scheduled to be installed and developed by the end of July 2006.

RISTO LOS ANGELES

The Risto Los Angeles facility is located at 1441 W. 190th Street in Torrance, California, immediately north and upgradient of the Former C-6 facility. Although in 1992 DTSC identified the facility for preliminary environmental assessment, no additional information has been available.

ECOLOGY CONTROL INDUSTRIES

Background

Ecology Control Industries (ECI) is located at 19500 S. Normandie Avenue in Torrance, California. The facility has been previously occupied by Lawson Enterprises, Incorporated (1962 to 1983), Major Paint Company (December 1984 to July 1985), Cal Gypsum (1985), and Andrews Pre-Fab (1986). In July 1986, three 5,000-gallon underground storage tanks (USTs), which according to the LACoDPW contained recycled solvents and thinners, were removed. These USTs were used from 1962 to 1985. Three, 8-foot diameter aboveground storage tanks (ASTs) contained methylene chloride, although no information regarding usage dates were available. Contaminants detected at the site include TCE, PCE, hydrocarbons, and styrene in soil samples; and TCE, PCE, and methylene chloride in groundwater.

Regulatory Oversight

May 26, 2006	Letter from LARWQCB to ECI regarding noncompliance with LARWQCB's January 18, 2005 directive requiring quarterly groundwater sampling and reporting and a subsurface investigation report. None of the 2005 quarterly groundwater monitoring reports, the 1 st quarter 2006 groundwater monitoring report, nor the subsurface investigation report have been submitted to LARWQCB.
June 5, 2006	Letter from LARWOCB commenting on errors in the November 2004

Letter from LARWQCB commenting on errors in the November 2004 Groundwater Well Gauging and Sampling Report prepared by Earth Tech, Inc.

Recent Activities

There were no reports available for review.

Schedule

According to LARWQCB's June 5, 2006 letter, the next quarterly groundwater monitoring report is due by July 31, 2006.

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AMERICAN POLYSTYRENE CORPORATION

Background

American Polystyrene Corporation (APC), formerly known as Amoco Chemical and Brand Plastics, has been located at 1225 W. 196th Street in Torrance, California since 1962. These companies produced polystyrene by mixing a styrene polymer and 20% mineral oil solution (Ecology & Environment, March 21, 1987). The facility was listed under RCRA. Brand Plastics operated the facility from 1962 to 1964. An industrial waste permit was issued to Brand Plastics in 1962 for the use of a 35-foot deep dry well for the discharge of cooling water for plastic extruding machines (URS Corporation, August 3, 2004). After Brand Plastics, Amoco operated the facility from 1964 to 1993. On May 6, 1993 APC purchased the property from Amoco. Available reports demonstrate that soil and groundwater have been impacted by the past operations. The facility has nine 10,000-gallon USTs; including eight that have been recently used to store styrene and one to store mineral oil (URS Corporation, August 3, 2004). The principal chemicals of concern are TCE, PCE, methylene chloride, and styrene.

Regulatory Oversight

March 10, 2006	LARWQCB	sent	a	letter	to	APC	and	Atlantic	Richfield	Compar	ıy

(ARCO) regarding review of previous chemical storage, use and disposal practices. LARWQCB requires Amoco (now ARCO and British Petroleum [BP]) to conduct quarterly groundwater monitoring/reporting and to prepare a work plan to determine the full vertical and lateral extent

of soil and groundwater contamination by June 30, 2006.

March 10, 2006 SWAPE (consultant for APC) sent a letter to LARWQCB requesting

removal from further consideration as a responsible party in the

contamination of soil and groundwater at their facility.

March 29, 2006 USEPA sent a letter to LARWQCB regarding request for installation and sampling of groundwater monitoring wells at TRICO/PACCAR Facility

and APC Facility. USEPA would like more groundwater data from these

sites to support the remedial design effort and source identification.

April 28, 2006 Internal correspondence from Rebecca Chou of LARWQCB to file regarding meeting with APC on April 12, 2006. APC stated that they do

not use chemicals in their operations that are present in soil and groundwater. APC stated that Amoco did not disclose soil and groundwater contamination during sale of facility. Baseline groundwater concentrations of contaminants were listed in the sales agreement with a clause that states APC would be responsible for cleanup if future groundwater contaminant concentrations are higher than baseline,

otherwise BP would be responsible for cleanup. APC reportedly requested a reduction of monitoring frequency in the first quarter 2006 groundwater monitoring report. This request has been put on hold until

LARWQCB reviews the first quarter 2006 report. APC requested an

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extension for the work plan submittal and will put request in writing following a meeting with ARCO/BP.

Recent Activities

On January 17, 2006, Winefield & Associates, Inc. (Winefield), on behalf of APC, submitted a Fourth Quarter 2005 Groundwater Monitoring and Status Report to LARWQCB. The report presents fourth quarter groundwater monitoring data including isoconcentration plumes for the facility's six groundwater monitoring wells screened in the Upper Bellflower Aquitard. Groundwater flow is reportedly to the south. Concentrations of TCE in the six groundwater monitoring wells ranged from 742 to 7,160 ug/L. The maximum concentration of PCE and cis-1,2-DCE detected in groundwater was 2,050 and 231 ug/L, respectively. APC states that cis-1,2-DCE, TCE, and PCE are compounds that are not used by APC, and have not been used at the site by any past owners. In the report, APC requested to "be removed from the financial burden of all further groundwater monitoring, assessment and/or remediation requirements."

Schedule

According to the March 1, 2006 LARWQCB correspondence, a subsurface investigative work plan is due June 30, 2006 and the second quarter 2006 groundwater monitoring report is due July 2, 2006.

PACCAR (Former Trico Industries)

Background

The facility is located at 1206 West 196th Street in Torrance, California. Property use included agricultural activities (1920-1940), construction of a cesspool (1957) followed by paint manufacturing and storage of solvents by American Chemsolv. In 1974 B&W Monarch purchased the site and later Trico Industries purchased the facility from B&W in January 1981 and used the site for manufacturing and testing well completion equipment. In 1989, Trico sold the western portion (19706 S. Normandie Avenue) to Mighty USA. Hazardous materials used at the site included paints, paint thinners, and various types of lubricating and hydraulic oils. Elevated concentrations of diesel fuel, TCE, PCE, TCA, and 1,2-DCA have been detected in soil and groundwater.

Regulatory Oversight

May 8, 2006

Internal correspondence from Rebecca Chou of LARWQCB to file regarding phone call between Rebecca Chou and Fred Benz of PACCAR on March 28, 2006. Fred Benz mentioned that PACCAR conducted groundwater monitoring in July 2005 and will send a copy of the report to LARWQCB for review. PACCAR removed a clarifier located at the southeast corner of the facility and will remove rain collection system and drain lines later this year.

May 8, 2006

Internal correspondence from Rebecca Chou of LARWQCB to file regarding phone call between Rebecca Chou and Fred Benz of PACCAR on May 8, 2006 on project status and cleanup requirements. Rebecca

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indicated that any soil cleanup should meet preliminary remediation goals (PRGs) for human health protection and soil screening levels (SSLs) for groundwater protection. Evaluation of indoor air intrusion is required for no further action (NFA). LARWQCB has not received the July 2005 groundwater monitoring report. Fred Benz will send copy of report to LARWQCB and will call back in June 2006 to setup a meeting to discuss project status and requirements.

May 18, 2006

LARWQCB sent letter to PACCAR regarding notice of noncompliance related to submittal of quarterly groundwater monitoring reports.

May 19, 2006

LARWQCB sent letter to PACCAR requesting further investigation to define the lateral and vertical extent of contamination onsite and offsite in soil, soil gas, and groundwater (B-Sand, C-Sand, and Gage aquifer). A subsurface investigation work plan is due by August 15, 2006 with a report summarizing the investigation due by November 15, 2006.

Recent Activities

In May 2006, PACCAR submitted a groundwater monitoring report to LARWQCB prepared by AMEC Earth and Environmental, Inc. (AMEC) on January 20, 2006. The report presents groundwater monitoring data collected in July 2005 from six wells; MW-3 through MW-8 screened in the Upper Bellflower Aquitard. Groundwater flow is reportedly to the south-southwest. Concentrations of TCE in the six groundwater monitoring wells ranged from 1,300 to 19,000 ug/L. The maximum concentration of PCE and cis-1,2-DCE detected in groundwater was 7,100 and 3,400 ug/L, respectively. Other compounds detected in groundwater of interest include benzene (up to 36 ug/L), chloroform (up to 170 ug/L), 1,1-dichloroethane (up to 1,900 ug/L), 1,1-dichloroethene (up to 900 ug/L), 1,1,1-trichloroethane (up to 280 ug/L), and vinyl chloride (up to 29 ug/L).

Schedule

A work plan outlining a subsurface soil, soil gas, and groundwater investigation is due to LARWQCB by August 15, 2006 with a report summarizing the investigation due by November 15, 2006.

MIGHTY USA (Former Trico Industries)

This facility is located at 19706 S. Normandie Avenue in Torrance, California and it was part of the former Trico Industries site. Mighty USA also leases the remainder of the eastern portion of the property which is owned by PACCAR. Environmental investigations were initiated at the site as early as 1987. The principal potential source of subsurface contamination, including solvents, at the site is a former cesspool located in the southwest part of the property (URS Corporation, August 3, 2004). Elevated concentrations of TCE, PCE, and methylene chloride have been detected in groundwater (SCS Engineers, November 1987; April 1988).

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Regulatory Oversight

There was no information available for review.

Recent Activities

There were no reports available for review.

Schedule

No information was available with respect to future activities.

REDMAN EQUIPMENT AND MANUFACTURING COMPANY

The Redman Equipment and Manufacturing Company (Redman) facility is located at 19800 S. Normandie Avenue in Torrance, California. According to URS (August 3, 2004), Redman manufactures new heat exchangers and cleans and repairs used heat exchangers. An inspection of the facility in 1978 revealed that Redman was discharging heat exchanger rinse water containing pollutants to an unimproved drainage ditch at the rear of the property. According to a 1979 NPDES permit the intermittent discharge of rainfall runoff from the process areas are mixed with heat exchanger hydrotesting and cleaning wastewater and conveyed to a drainage ditch that is connected to the Dominguez Channel. In 1987, two 10,000-gallon USTs (containing diesel and gasoline) were removed from the site (URS Corporation, August 3, 2004). Soil samples collected from the resulting excavation showed up to 222 mg/kg of total recoverable petroleum hydrocarbons (TRPH) beneath the former diesel tank. The LARWQCB was contacted on July 3, 2006 to discuss the status of this site. According to LARWQCB, this site was transferred to the County of Los Angeles Department of Public Works (LACDPW). Discussions with LACDPW on July 3, 2006 indicated that the case is currently under review.

MONTROSE CHEMICAL

Background

The Former Montrose Chemical facility is located at 20201 S. Normandie Avenue, Torrance, California. It is located immediately adjacent to and south of the Former C-6 Facility. Montrose operated a DDT-manufacturing plant at this 13-acre property from 1947 to 1982. Chemicals of concern in soil and groundwater include DDT, chloroform, chlorobenzene, benzene, pCBSA, and chlorinated VOCs. In September 1999, the USEPA issued a joint Record of Decision for the Del Amo and Montrose sites. On May 8, 2003, EPA issued an Administrative Order to begin remedial design activities. Once these activities are completed, another administrative order is expected to be issued.

Regulatory Oversight

There was no information available for review.

Recent Activities

In November 2005, Montrose initiated pilot test activities with an injection test on Well G-IW-2, located near the intersection of Vermont Avenue and Del Amo Boulevard at a rate of 120 gallons

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per minute (gpm). An extraction test on Well BF-EW-1, located near the intersection of Del Amo Boulevard and Normandie Avenue, began November 30, 2005 and concluded on December 7, 2005. This extraction test was reportedly not very successful at a flow rate of 7 gpm with little drawdown observed. There have been no tests conducted during 2006 because of permitting delays with the County of Los Angeles.

Schedule

Installation of additional groundwater monitoring wells in the Gage aquifer began on May 22, 2006. Installation of the remaining pilot test wells (BF-IW-2, G-IW-1, and BF-IW-1) was scheduled to begin June 5, 2006. Injection tests will begin with Well BF-IW-2 in late June or early July 2006 with subsequent injection test starting about three weeks later on Wells BF-IW-1 and G-IW-1. Montrose is preparing a DNAPL Feasibility Study that will be submitted to USEPA in September 2006. Montrose would like to coordinate September 2006 water level measurements with BRC.

JONES CHEMICAL

Background

The Jones Chemical facility is located adjacent to the south side of the Montrose property. In 1995, a preliminary environmental assessment (PEA) was conducted at Jones Chemical to determine whether current or past waste management activities have resulted in the release of hazardous substances. The PEA included a review of the history of operations at Jones Chemical, soil gas sampling, soil sampling, and risk screening. Analytes in soil included pesticides, VOCs, semi-volatiles, PCBs, and metals. Seventy-five soil gas samples were collected from 73 locations and over 150 soil samples were collected from 77 locations. No other historical information was available for review.

Regulatory Oversight

There was no information available for review.

Recent Activities

No information available on recent activities.

Schedule

No information was available with respect to future activities.

INTERNATIONAL LIGHT METALS

Background

6334

International Light Metals (ILM) is located at 19200 S. Western Avenue, bordered to the north by W. 190th Street and to the east by the Former C-6 Facility. This 67-acre property was an industrial metal processing company from the beginning of World War II to 1992. Its operations included manufacturing and processing aluminum and titanium products. The principal chemicals included VOCs such as TCE and chromium. The wastes of their operation included

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spent sulfuric acid and sodium hydroxide, waste oils, spent TCA, acid and caustic sludges, spent petroleum solvents, and PCBs. High concentrations of TCE and hexavalent chromium have been detected at this facility

Regulatory Oversight

There was no information available for review.

Recent Activities

According to information provided by BRC personnel, ILM is currently implementing pilot test work plan activities. ILM obtained a waste discharge requirement (WDR) permit from the LARWQCB on February 7, 2006. Groundwater monitoring wells related to the pilot test activities were installed in April 2006. Application of hydrogen release compound (HRC) began on May 12, 2006 at depths ranging from 70 to 115 bgs. Baseline groundwater data obtained from the pilot test monitoring wells showed evidence of ethanes and ethenes.

Schedule

First groundwater monitoring under WDR permit is scheduled for June 12, 2006.

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REFERENCES

- AMEC Earth and Environmental Inc., January 20, 2006, Groundwater Monitoring Report, Former Trico Torrance Industries Facility, 1206 West 196th Street, Torrance, California 90502. Ground Water Monitoring Report prepared for PACCAR Inc.
- Ecology & Environment, Inc., March 21, 1987, Review of the Preliminary Assessment of the Amoco Chemical Corporation prepared by Steve Tumura of the California Department of Health Services (CDHS) dated June 1986, memorandum from Kimberley Williams Bean to Paul La Courreye.
- Haley & Aldrich, May 30, 2006, *Adjacent Sites Summary*, email from Beth Breitenbach to Brad Rogers.
- Los Angeles Regional Water Quality Control Board, March 1, 2006, California Water Code Section 13267 Order for Subsurface Investigation of Unauthorized Discharges at Former Amoco Chemical Company Polystyrene Facility, 1225 West 196th Street, Torrance (SLIC No. 214), letter to American Polystyrene and Atlantic Richfield Company requesting a work plan.
- Los Angeles Regional Water Quality Control Board, April 28, 2006, American Polystyrene Corporation (APC) (SLIC No. 0240). Internal correspondence from Rebecca Chou to file.
- Los Angeles Regional Water Quality Control Board, May 8, 2006, American Polystyrene Corporation (APC) (SLIC No. 0240). Internal correspondence from Rebecca Chou to file.
- Los Angeles Regional Water Quality Control Board, May 8, 2006, TRICO/PACCAR facility located at 1206 W. 196th Street, Los Angeles (SLIC No. 0428). Internal correspondence from Rebecca Chou to file.
- Los Angeles Regional Water Quality Control Board, May 18, 2006, Notice of Noncompliance-Requirements for Subsurface Investigation for Unauthorized Discharges at PACCAR Inc./Former Trico Industries, 1206 W. 196th Street, Los Angeles (SLIC No. 0428, Site 2043Y00). Letter to Fred Benz of PACCAR.
- Los Angeles Regional Water Quality Control Board, May 19, 2006, California Water Code Section 13267 Request for Subsurface Investigation for Unauthorized Discharges at PACCAR Inc./Former Trico Industries, 1206 W. 196th Street, Los Angeles (SLIC No. 0428, Site 2043Y00). Letter to Fred Benz of PACCAR.
- Los Angeles Regional Water Quality Control Board, May 26, 2006, Notice of Noncompliance-Requirements for Subsurface Investigation for Unauthorized Discharges at Ecology Control Industries, 19500 Normandie Avenue, Torrance, California (SLIC No. 1169, Site ID 2040172). Letter to Chuck Stevens of Ecology Control Industries.

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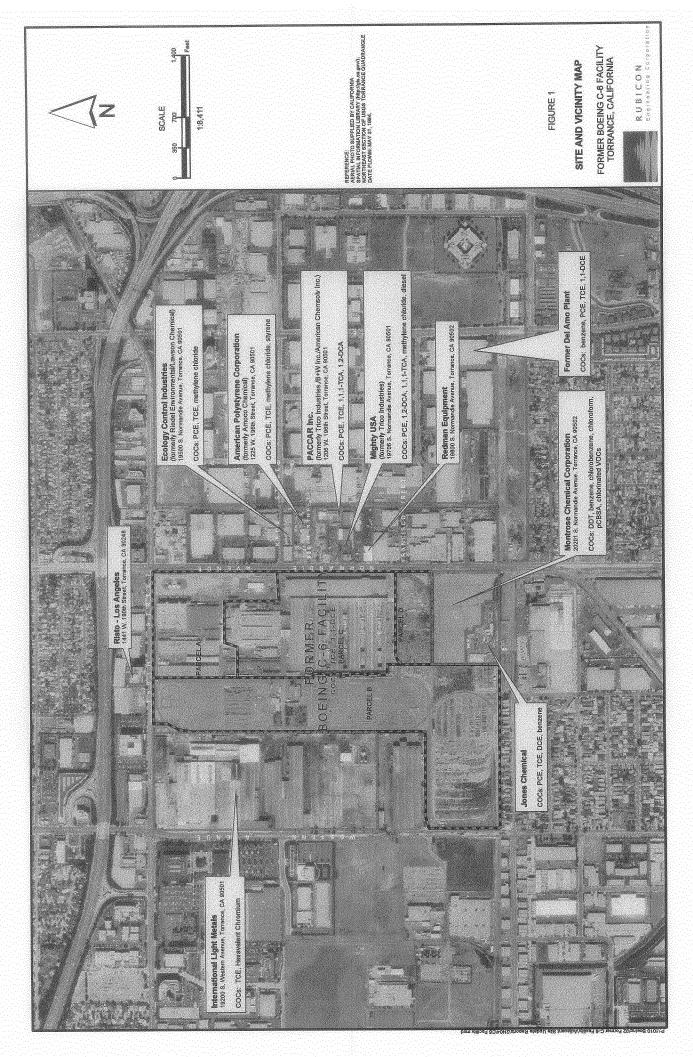
- Los Angeles California Regional Water Quality Control Board, June 5, 2006, Comments on November 2004 Groundwater Well Gauging and Sampling Report-Ecology Control Industries. Letter to Chuck Stevens of Ecology Control Industries.
- SCS Engineers, November 1, 1987, Preliminary Draft Report for Additional Site Investigation at the Trico Industries Facility 19706 Normandie Avenue Torrance, California, prepared for Haines, Russ, McMurray and de Recat.
- SCS Engineers, April 1, 1988, Report for Further Investigation at the Trico Industries Facility 19706 Normandie Avenue Torrance, California, prepared for Trico Industries.
- SWAPE, March 10, 2006, Former Amoco/American Polystyrene Corporation Facility, 1225 West 196th Street in Torrance, California. Letter to Ana Townsend of LARWQCB.
- United States Environmental Protection Agency, March 29, 2006, EPA Coordination with RWQCB-LA Regarding Request for Groundwater Monitoring Wells for former TRICO/PACCAR Facility and Amoco/American Polystyrene Facilities: Montrose Chemical and Del Amo Superfund Sites: Los Angeles, CA. Letter to Rebecca Chou of LARWQCB.
- URS, August 3, 2004, Work Plan TCE and Benzene Plumes Data Acquisition Initial Remedial Design Work Dual Site Groundwater Operable Unit Joint Montrose Chemical and Del Amo Superfund Site Los Angeles, CA DSGWRD 0936-002, 0936-005 and 0936-010, prepared for Shell Oil Company.
- Winefield and Associates, Inc., January 17, 2006, 4th Quarter 2005, Groundwater Monitoring and Status Report. Report prepared for LARWQCB on behalf of American Polystyrene Corporation.

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Figure 1

Site and Vicinity Map

RUBICON



Attachment 1

Adjacent Sites Contact Information

ATTACHMENT 1

ADJACENT SITES CONTACT INFORMATION

Site

Contact

Jones Chemical

LFR Levine Fricke

Charles E. Robinson P.E.

Vice President

3150 Bristol Street, Suite 250 Costa Mesa, California 92626

Phone: (714) 444-0111 Fax: (714) 444-0117 charles.robinson@lfr.com

Ecology Control Industries

Joe McCaffrey

Ecology Control Industries 19500 Normandie Avenue Torrance, CA 90502 Phone: (310) 354-9999

Fax: (310) 354-6670

imccaffrey@ecologycontrol.com

Del Amo

URS Corporation

John Dudley

130 Robin Hill Road, Suite 100 Santa Barbara, CA 93117 Phone: (805) 964-6010

ILM

TRC Solutions Ron Giraudi **Project Director**

21 Technology Drive Irvine, CA 92618 Phone: (949) 727-9336 Fax: (949) 727-7399

rgiraudi@tresolutions.com

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ATTACHMENT 1

ADJACENT SITES CONTACT INFORMATION

Montrose

Hargis + Associates

Mike Palmer

Mission City Corporate Center

2365 Northside Drive

Suite C-100

San Diego, CA 92108 Phone: 619-521-0165 Fax: 619- 521-8580 Mpalmer@hargis.com

American Polystyrene

Michael C. McAnulty

Environmental Business Manager

Atlantic Richfield Company

LPR6-166

6 Centerpoint Drive La Palma, CA 90623 Phone: (714) 228-6709 Fax: (714) 228-6749

mcanumc@bp.com

PACCAR Inc.

1.66

Fred Benz

Environmental Engineer

PACCAR Inc.

PACCAR Building 777 106th Avenue N.E. Bellevue, WA 98004 Phone: (425) 468-7901 Fax: (425) 468-8213

Fred.benz@paccar.co